Actuarial financial reporting paper:

example considerations for actuarial reporting in respect of (re)insurance financial statements

Financial Reporting Working Group

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1. Introduction

The financial statements of (re)insurance undertakings or holding companies can include a number of balances (e.g. (re)insurance liabilities and assets, intangible assets and liabilities, CSM) where an actuary may be involved in their calculation, review and/or documentation.

The extent of involvement, if any, by the actuary (hereafter referred to as a "Reporting Actuary") in the reporting of such balances in the financial statements will depend on the particular circumstances (e.g. the agreed actuarial scope, the financial statement accounting basis, the nature of the business written).

Where an actuary is involved in the reporting of such balances in the financial statements, the actuary may produce a report on their work. There is currently no legislative or regulatory requirement in Ireland for an actuary to produce a report in relation to their work in respect of financial statements.

Members of the Society of Actuaries in Ireland ("SAI") are obliged to comply with ASP PA-2 (General Actuarial Practice)¹ and ASP GI-1 (General Insurance Business – Actuarial reports)².

The International Actuarial Association has published IAN 100³ (Application of IFRS 17 Insurance Contracts) and ISAP 4⁴ (IFRS 17 Insurance Contracts) which are non-binding for members of the SAI.

2. Purpose of this paper

A working party of the SAI was asked to consider what, if any, areas an actuary may wish to consider including in such a report in respect of (re)insurance financial statements, if applicable. (This paper excludes consideration of balances relating to pension scheme obligations.)

This paper lists a number of example areas for potential consideration in producing such a report (hereafter referred to as a "Reporting Actuary Report" or "the Report").

This document has been expanded to include considerations for financial statements prepared in accordance with IFRS 17 and considerations for life and non-life specialists.

3. Use of this paper

The list of areas for potential consideration suggested below is neither intended to be wholly complete nor to form a minimum or maximum set of areas that an actuary may consider in the Report. In particular, it is not expected that all areas would necessarily apply to a single (re)insurance company. The list is provided only for educational purposes.

There are likely to be exceptions and circumstances where many, but not all, of the areas below are appropriate for individual companies to consider. There may also be circumstances where areas beyond those listed below would be appropriate to consider.

¹ https://web.actuaries.ie/standards/asp/asp-pa-2

² https://web.actuaries.ie/standards/asp/asp-pa-1

³ https://www.actuaries.org/IAA/Documents/Publications/IANs/IAA IAN100 31August2021.pdf

⁴ https://www.actuaries.org/IAA/Documents/CTTEES ASC/Final ISAPs Posted/IAA ISAP4 ApprovedFinal 21Nov2019.pdf

4. Possible areas for consideration in a Reporting Actuary Report

In many cases, it may be appropriate to cross-reference to other documentation, e.g. reports produced for Solvency II such as the ARTPs.

Each area listed below includes some examples for consideration. In particular, example considerations below are not intended to be a checklist in respect of each area.

4.1 General considerations for the report, governance and controls

#	Possible area	Example considerations
1.	General General	The Reporting Actuary should consider the guidance set out in ASP PA-2 (General Actuarial Practice) and ASP GI-1 (General insurance business – actuarial reports). Table of contents and page numbers Who the report is addressed to / anticipated users of the report Responsibilities of the Board Scope of the Reporting Actuary's work Other team members involved in the production of the report Executive summary Simplifications and approximations Material thresholds
		 Material thresholds Data quality Reliances and limitations Assumptions and methodology Recommendations Conclusions Subsequent events Glossary Version control, history Appendices, e.g. Summary descriptions of products and of reinsurance Status of previous recommendations Statement relating to compliance with any relevant ASP's Table of compliance with ISAP 4 / relevant ESAP Data sources Cross references to other documents for relevant content which is not repeated in this report (e.g. to ARTPs)
2.	Governance and controls	 Key risks and corresponding controls Review and sign-off process and application

4.2 Context / background / scope of the Reporting Actuary

#	Possible area	Example considerations
1.	Nature of financial statements	 Whether: entity financial statements (e.g. "local" FS), supporting reporting to a parent (e.g. "group reporting), or consolidated financial statements (e.g. line-by-line consolidation for holding company)
2.	Financial statement accounting basis	 IFRS, FRS 102, FRS 103, US GAAP, Canadian GAAP etc Whether it has changed in the period Any applicable local regulations, e.g. 2015 Insurance Accounts regulations (as amended in 2016)
3.	Accounting policies for insurance and with-DPF classified policies	 Modified Solvency I, modified Solvency II, US GAAP, Canadian GAAP, MCEV Measurement models (IFRS17) Applicable sections of other IFRSs (e.g. IFRS 13 when measuring Fair Value) Whether it has changed in the period
4.	Balances (or "line items") in scope of the report	 (Re)insurance liabilities and assets, deferred acquisition costs asset, deferred income liability, deferred tax asset recoverability, withholding tax asset, risk adjustment, contractual service margin. Any note disclosures in scope
5.	Materiality	 Nominal amount(s), how they have been determined Guidance received from the entity regarding materiality
6.	Overview of the undertaking in scope	 Nature of business written (e.g. classes, products, geographical location of risk, whether sold on FOS or FOE basis for each country) The business environment in which the entity operates Whether open or closed to new business (and when closed) The entity's appetite for risk. When started writing business Reporting currency and material currency exposures How law affects the reporting of financial statements Relevant auditing standards
7.	Overview of key relevant developments in the reporting period	 New (or changes to existing) products and reinsurance Closure to new business Acquisitions, portfolio transfers Change in ownership Changes in outsourcing, systems, resourcing, processes Changes in accounting / regulatory requirements or policies Changes in the operating / business environment

4.3 Identification, classification, unbundling, embedded derivatives, service contracts, level of aggregation

#	Possible area	Example considerations
1.	Classification of contracts (i.e. under IFRS 17 / FRS 103) between investment w/o DPF, insurance w/o DPF, insurance with DPF, investment with DPF and for reinsurance	 Summary of exposure to each classification of contract How the contract meets the criteria for significant insurance risk transfer Reference to documentation of application of contract classification, e.g. document with contract/product level classification, conclusion and supporting rationale
2.	Separation of non-insurance components	 Whether required (and why) or applied as an option Where applied, e.g. which blocks of business Approach to hybrid UL UWP policies Accounting treatment of components separated from the host contract
3.	Embedded derivatives (EDs)	 Nature of any embedded derivatives in the actuarial liabilities, e.g. type of ED, classification of host contract (e.g. insurance non-DPF) Whether any embedded derivatives required separation and fair valuation
4.	Level of aggregation	 Criteria for determining which contracts should be grouped together for measurement, including assessment of similar risks and which contracts are managed together. IFRS 17 unit of account, including cohort grouping and profitability groupings and how determined
5.	Recognition, derecognition and modification	Groups of contracts that have been recognised, modified or derecognised during the period

4.4 Reserving methodology, models, data, assumptions, reinsurance

#	Possible area	Example considerations
1.	Investment (non- DPF) methodology	 Approach to accounting for deposit component vs investment management services component Unit reserves valuation (e.g. bid value of units) Approach to actuarial funding Reserving changes in the period
2.	Insurance methodology	 Methodologies used (e.g. discounted cashflow, chain ladder, Rule of 78, etc) IFRS 17 measurement model used (GMM / PAA / VFA), if applicable Unit reserves valuation (e.g. bid value of units) Contract boundaries and how determined Reserving methodology changes in the period
3.	Models	 Key models used Modelling changes in the period Projection period Results of model governance, e.g. "baselining" (independent testing), change control Model governance Model limitations
4.	Data	 Key types of data used (e.g. policyholder data) Sources (e.g. internal sources, external sources) Data used for assumption setting Changes in data in the period Completeness and accuracy of the data Extent of data cleansing required Checks and controls performed Data governance Data limitations Characteristics of the insurance contract and including the risks being insured Characteristics of the policyholder and the way the contract was sold
5.	Assumptions	 Whether best estimate Adjustments to best estimate (e.g. PADs, Risk Adjustment) Differences between bases (e.g., Solvency II, IFRS17) Appropriateness of assumptions Consideration of uncertainties in assumption setting Expert judgements involved in assumption setting Effect of discontinuities in experience on assumption setting Whether the assumption set is reasonable in the aggregate Alternative assumptions and sensitivity testing Internal consistency of assumptions Consideration or otherwise of entity specific assumptions (including whether entity specific data has been used to set assumptions) Material basis changes over the period Process for updating assumptions

#	Possible area	Example considerations
6.	IFRS17 specific items	 Discounting Derivation approach for discount rate (top-down, bottom-up) Data sources Sensitivies to changes in discount rates Allowance for illiquidity of insurance assets and liabilities Risk adjustment Understanding financial risk of the entity Calculation methodology Allowance for diversification Confidence interval disclosure Allowance for ceded risk adjustment PAA eligibility testing
7.	Reinsurance held	 Type of reinsurance, e.g. quota share, XoL Treaties open / closed to new business Changes in the period How modelled (e.g. vs underlying) Approach to haircut (of a reinsurance asset) for counterparty risk Impairment testing of a reinsurance asset Split by counterparty / counterparty rating When multiple reinsurance arrangements are in effect, consider the order in which they apply Impact of reinstatements following claims

4.5 Reserving results and analysis

#	Possible area	Example considerations
1.	Liability adequacy testing ("LAT")	 How assessed, whether on a qualitative basis or a quantitative basis, e.g. by comparison of booked reserves (less related intangibles) in the financial statements against a best estimate How the best estimate value (used in the comparison) was determined, e.g. whether based on Solvency II BEL and if any adjustments applied (e.g. inclusion of post-contract boundary VIF) LAT results split by contract classification (see example table below) Explanation of movement in LAT results in the period
2.	Breakdown of reserves	 By sales source (e.g. product type, country/region, business unit) By reserve type (e.g. UPR, AURR, IBN(E)R, ICOP, unit reserves, non-unit reserves for unit-linked business). For IFRS 17 financial statements this breakdown could include LIC and LRC (claims, expenses, risk adjustment, CSM, loss component, investment component) By modelling source, e.g. modelling system vs out-of-model By measurement model (GMM, VFA, PAA) By insurance and reinsurance contracts By new business (onerous / non-onerous contracts)
3.	Movement analysis	 Opening to closing analysis How calculated, whether independent (approach to any unreconciled items) Explanatory narrative (e.g. for each movement component) Split by gross/net, product group, reserve type, measurement model, onerous/non-onerous contracts Sense checks performed and results
4.	Out-of-model items (e.g. manual reserves, adjustments)	 Description (e.g. nature, why required) Classification (e.g. investment, insurance) How calculated (data, assumptions and methodology)
5.	Reconciliations of reserves to other reporting basis	Local vs groupFS to Solvency II
6.	Sensitivities	By product group Gross vs net of reinsurance
7.	Analysis of surplus	 Approximations / adjustments / limitations Untraced tolerance levels

4.6 Other items

#	Possible area	Example considerations
1.	DAC, DIL, Assets for insurance acquisition cashflows	 Nature of costs and fees deferred and not deferred, and why Amortisation period, how determined and if changes Consistency of amortisation period with when services are provided Approach to policy "offs" (such as surrender, maturity, death), i.e. whether write down DAC/DIL and consistency with amortisation period Reconciliation of new deferred (before amortisation) to incurred in period Approach to DAC recoverability, e.g. grouping level Roll-forward from opening to closing (see example further below)
2.	Earnings	 CSM amortisation Risk adjustment unwind Interest accretion Net Investment Result
3.	Risks	 Nature and extent of risks from contracts in scope (e.g., credit risk, liquidity risk, market risk) Changes in risk profile/concentration
4.	Shadow accounting	Where and how applied
5.	Acquisition accounting and investments in subsidiaries	 Description of acquisitions, accounting applicable (e.g. whether a business combination, whether under common control) and methodology applied Goodwill, e.g. how determined, impairment testing AVIF, e.g. how determined, amortisation, impairment testing Investment in subsidiaries valuation approach
6.	Contingent liabilities (FS note disclosure)	How relates to policyholder liabilities, if applicable
7.	Tax	 DTA recoverability approach and results Withholding tax asset recoverability approach and results, e.g. recovery mechanism used (and sequence) for Italian withholding tax asset Consistency of DTL with DAC / AVIF

5. Appendices

5.1 Example checklist for ASP PA-2 General Actuarial Practice

The following table is one example, amongst others, of how an actuary may decide to assess compliance with ASP PA-2 v1.2. The table does not repeat the full text from ASP PA-2. Members should refer to the latest full version of ASP PA-2 in their own assessment of compliance.

Principal: The party who engages the member (or the member's firm, as the context requires) to provide actuarial services. The principal will usually be the client or the employer of the member.

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments							
1. General	1.2 Scope	1.2	Scope	Subject to the remaining provisions of this section 1.2, this ASP applies to all actuarial services performed by a member (regardless of whether or not such services could be performed by a person who has not completed actuarial education) unless a requirement herein is in conflict with law or is superseded by another ASP or relevant professional standard of practice or by law.										
	1.3 Compliance	1.3	Compliance	Regarding any recorded communication relating to actuarial services that are completed, has the member disclosed any reason(s) for material deviation from obligations under this ASP? If the actuarial services are for the purposes of compliance with law, full disclosure is compulsory. Otherwise, the principle of proportionality and whether such disclosures would be inappropriate in the context of the particular assignment may be considered.										
	2.1 Acceptance of Assignment			a) The role of the principal?										
			Has the member	b) Any limitations or constraints on the member?										
				c) Any requirements that the member is required to satisfy?										
			2.1 Accentance	2.1 Accentance		2.1.1					d) Identification of the schedule of work, the expected cost (as relevant to the circumstances, including whether the member is engaged rather than employed by the principal) and/or the resources needed?			
2. Appropriate				e) The information needed to be communicated to and by the member, especially if it is sensitive or confidential?										
Practices			2.1.2 Is the member:	a) Satisfied that the assignment can be performed in accordance with the Code of Professional Conduct, including the provisions of the Code relating to Competence and Care?										
		2.1.2		b) Satisfied that they will have the time, resources, access to relevant employees and other relevant parties, access to documentation and information, and the right to communicate information, as may be necessary for the work (unless exceptional circumstances apply)?										
	2.2 Knowledge of Relevant Circumstances	2.2	Knowledge of Relevant Circumstances	Has the member obtained sufficient knowledge and understanding of the data and information available, including as appropriate the relevant history, processes, nature of the business operations, law, and business environment of the entity, to be appropriately prepared to perform the actuarial services required by the assignment?										

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments	
			If the member	a) The other party's qualifications				
			selects the party	b) The other party's competence, integrity and objectivity				
		2.3.1	J /	c) The other party's awareness of how the information is to be used				
		2.3.1	the member should consider the following:	d) Discussions and correspondence between the member and the other party regarding any facts known to the member that are likely to have a material effect upon the information used				
			the following:	e) The need to review the other part's supporting documentation				
			If the member uses information	a) Should confirm that the use of that information conforms to accepted actuarial practice in the given jurisdiction				
		222	prepared by another party without	b) Should establish appropriate procedures for the management and review of the information to be used.				
	2.3 Reliance on Others	Reliance on		disclaiming responsibility for that information, the member:	c) Is not required to disclose the source of the information			
			If the member states reliance on the information prepared by another party and disclaims responsibility for it, the member should:	a) Disclose that fact (including identifying the other party) in any recorded communication or other appropriate communication				
		2.3.3		b) Disclose the nature and extent of such reliance				
				c) Examine the information for evident shortcomings				
				d) Review the information for reasonableness and consistency				
				e) Report how the member took steps to determine whether it was appropriate to rely on the information				
		2.3.4	Reliance on Information Out of Irish Jurisdiction	If any information was prepared by a party under a different jurisdiction, has the member considered any differences in the law or accepted actuarial practice between the two jurisdictions and how that might affect the member's use of the information?				
	2.4 Materiality	2.4.1 the threshold of materiality, did the member: When determining the threshold of	the threshold of materiality, did the	Assess materiality from the point of view of the intended users - does the omission or under/overstatement affect the decision making or reasonable expectations of the intended user?				
			the threshold of materiality, did the	Consider the actuarial services and the entity that is the subject of those actuarial services?				
		2.4.3	When determining the threshold of materiality, did the member:	Consult with the principal if necessary?				

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments		
				2.5.1		Is data sufficient (all appropriate information included and/or any gaps insignificant) and reliable (materially accurate)?			
			the member taken	a) Undertaking reconciliations against audited financial statements, trial balances, or other relevant records (if available)					
			reasonable steps to review the	b) Testing the data for reasonableness against external or independent data?					
		2.5.2	consistency,	c) Testing the data for internal consistency					
				d) Comparing the data to that for prior periods					
			accuracy of the data used. These <i>might include</i> :	Has the member described this review in the recorded communication?					
	2.5 Data Quality	2.5.3	for Entity-Specific Assumptions	To the extent possible and appropriate when setting entity-specific assumption has the member considered using data specific to the entity? Where data specific to entity are not available, relevant, or credible, has the member described in the recorded communication any industry data, data from other comparable sources, population data, or other published data used, and also any adjustments made to that data?					
		2.5.4	Data Modification	The member should disclose any modification of data before its use (such as interpolation, extrapolation, adjustment or discarding of outliers) in the recorded communication.					
				a) Decline to undertake/continue to perform actuarial services					
			motorially offoat	b) Work with the principal to modify the services or obtain appropriate additional data					
		2.5.5	the results and the member cannot find a satisfactory way to resolve the deficiencies, then the member should consider whether to:	c) Subject to the Code, perform actuarial services and disclose the data deficiencies in the recorded communication					
	2.7 Assumptions and methodology set by or	2.7.1	Selection of Assumptions and Methodology	Are the assumptions and methodology appropriate for the work? The member should consider the needs of the intended users and the purpose of the actuarial services. In selecting assumptions and methodology, the member should consider the circumstances of the entity and the assignment, as well as relevant industry and professional practices. Also consider if the assumptions or methodology been adjusted to compensate for known deficiencies in the available data. Has the member considered the extent it is appropriate to use assumptions or methodology that have a known significant bias to underestimation or overestimation of the result?					
	adopted by the member	2.7.2	Appropriateness of Assumptions	Has the member considered the appropriateness of the assumptions underlying each component of the methodology used? Assumptions generally involve significant professional judgement as to the appropriateness of the methodology used and the parameters underlying the application of such methodology. Assumptions may (if permitted in the circumstances) be implicit or explicit and may involve interpreting past data or projecting future trends.					

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments
		2.7.3	Adverse Deviations	Has the member considered to what extent it is appropriate to adjust the assumptions or methodology with margins for adverse deviations in order to allow for uncertainty in the underlying data, assumptions, or methodology? For the assumptions and methodology, have margins relating to adverse deviations and their corresponding broad effects been disclosed?			
		2.7.4	Discontinuities	Have the effects of any discontinuities relating to experience, both as a result of internal and external circumstances, on assumptions and methodology been considered?			
		2.7.5		Are all assumptions reasonable in aggregate? If not, have appropriate adjustments been made to make assumption reasonable?			
		2.7.6		Have any material inconsistencies in assumptions been documented in recorded communication with principal?			
			Interdependencies	Have any significant interdependencies been modelled appropriately?			
		2.7.7		Has the member considered and addressed the sensitivity of the methodology to the effect of variations in key assumptions?			
				If prescribed assumptions/methodology significantly conflicts with what would be appropriate for the purpose of the actuarial services, has the member disclosed in the recorded communication that fact, the party who prescribed the assumption or methodology, and the reason why this party, rather than the member, set the assumption or methodology			
	2.8 Assumptions and methodology prescribed	2.8.2	Disclosure	If the member has been unable to judge the appropriateness of the prescribed assumption or methodology without performing a substantial amount of additional work beyond the scope of the assignment, or the member was not qualified to judge the appropriateness of the assumption, has the member disclosed in the recorded communication that fact, the party who prescribed the assumption or methodology, and the reason why this party, rather than the member, set the assumption or methodology?			
		2.8.3	Disclosure	If the principal requested calculations based on assumptions/methodology the member does not consider to be reasonable for the purpose of the actuarial services, has the member, in the recorded communication, stated the source of those assumptions and the member's opinion of their appropriateness and that, if the results of the work are communicated to any party other than the principal, this information should be included?			
	2.9 Assumptions			Have all assumptions and methodology mandated by law been disclosed in the recorded communication as mandated by law?			
	and Methodology mandated by law	2.9	Bisciosare	Where assumptions and methodology are mandated by law, does the recorded communication state that it should not be used for other purposes where the assumptions and methodology used are not appropriate (unless appropriately adjusted)?			
	2.10 Model Governance	2.10.1		Where the member is using (selecting, developing, modifying and running) the model, is the member satisfied that the model risks have been identified, assessed and there are mitigation actions in place?			

Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments
	2.10.2	Model Validation	member satisfied that an appropriate model validation has taken place? Model validation assessments include a) The model reasonably fits its intended purpose, Items to be considered are the data and inputs required by the model, the appropriateness of relationships recognized, and if an appropriate range of results around expected values are generated b) The model meets its specifications c)The full or partial results of the model can be reproduced or any differences can			
	2.10.3	Model Governance	 - has the member showed understanding of the model and the conditions under which it should be used? - has the member disclosed any limitations or uncertainties of the model and their broad implications? - has the member stated the context in which the model will be used, how inputs will be provided 			
	2.10.4	Model Documentation	member satisfied there is adequate documentation of the model design, operation, construction, conditions of use and limitations? This documentation should include, where appropriate, scope, purpose, methodology, statistical quality, calibration, and fitness for intended purpose, and reflect			
	2.10.5					
	2.10.6	Model Results	a) is the member satisfied the conditions to use the model are met? b) is the member satisfied there are appropriate controls on inputs and outputs of the model? c)is the member satisfied the model validation performed is sufficient? d) has the member understood and explained material differences between different runs of the model? e) has the member understood any management actions or responses assumed within the model?			
2.11 Process	2.11.1					
management						
2.12 Quality		in deciding what quality assurance				
Assurance	2.12.1	appropriate and proportionate,	d. The extent to which professional judgement and/or analysis is required in the work			
	management 2.12 Quality	2.10.3 2.10.4 2.10.5 2.10.6 2.11 Process management 2.11.2 2.12 Quality 2.12.1	2.10.2 Model Validation 2.10.3 Model Governance 2.10.4 Model Documentation 2.10.5 Model Controls 2.10.6 Model Results 2.11 Process management 2.11.1 Process controls 2.11.2 Reasonableness checks Has the member, in deciding what quality assurance processes are appropriate and proportionate,	an appropriate range of results around expected values are generated b) The model meets its specifications cyThe full or partial results of the model can be reproduced or any differences can be explained. Where the member is using (selecting, developing, modifying and running) the model: - has the member showed understanding of the model and the conditions under which it should be used? - has the member disclosed any limitations or uncertainties of the model and their broad implications? - has the member stated the context in which the model will be used, how inputs will be provided and how the results will be used? Where the member is using (selecting, developing, modifying and running) the model, is the member satisfied there is adequate documentation of the model design, operation, construction, conditions of use and limitations? This documentation should include, where appropriate, scope, purpose, methodology, statistical quality, calibration, and fitness for intended purpose, and reflect changes to the model (if any) made by the member. Where the member is using (selecting, developing, modifying and running) the model, as is the member satisfied that the model is subject to appropriate controls? Where the member is using (selecting, developing, modifying and running) the model, as is the member satisfied the conditions to use the model are met? b) is the member satisfied the model validation performed is sufficient? d) has the member understood and explained material differences between different runs of the model? c) has the member understood and explained material differences between different runs of the model? b) has the member considered to what extent, if any, the procedures used to carry out the work and the extent of any to which the intended users may reasonably be explained. L112 Quality Assurance L112 Quality Assurance L112 Reasonableness: 1 Has the member, in deciding what quality assurance processes are appropriate and proportionate, appropriation and proportionate, in deciding w	2.10.2 Model Validation but satisfied that an appropriate model validation has taken place? Model validation as assessments include a) The model crassmably fits its intended purpose, Items to be considered are the data and inputs required by the model, the appropriateness of relationships recognized, and if an appropriate range of results around expected values are generated b) The model meets its specifications c) The full or partial results of the model can be reproduced or any differences can be explained. Where the member is using (selecting, developing, modifying and running) the model: - has the member showed understanding of the model and the conditions under which it should be used? - has the member disclosed any limitations or uncertainties of the model and their broad implications? - has the member stated the context in which the model will be used, how inputs will be provided and how the results will be used? 2.10.4 Model Documentation Where the member is using (selecting, developing, modifying and running) the model, is the member satisfied there is adequate documentation of the model design, operation, construction, conditions of use and limitations? This documentation should include, where appropriate, scope, purpose, methodology, statistical quality, calibration, and fitness for intended purpose, and reflect changes to the model (if any) made by the member. Where the member is using (selecting, developing, modifying and running) the model, is the member satisfied that the model is subject to appropriate controls? Where the member is using (selecting, developing, modifying and running) the model, is the member satisfied there are appropriate controls on inputs and outputs of the model? b) is the member satisfied there are appropriate controls on inputs and outputs of the model? c) is the member satisfied the model validation performed is sufficient? b) is the member satisfied there are appropriate controls on inputs and outputs of the model? c) is the member understood and explained m	member satisfied that an appropriate model validation has taken place? Model validation assessments include a 7he model reasonably fits its intended purpose, ltems to be considered are the data and inputs required by the model, the appropriateness of relationships recognized, and if an appropriate range of results around expected values are generated b) The model meets its specifications cyThe full or partial results of the model can be reproduced or any differences can be explained. Where the member is using (selecting, developing, modifying and running) the model: - has the member showed understanding of the model and the conditions under which it should be used? - has the member is using (selecting, developing, modifying and running) the model has the member stated the context in which the model will be used, how inputs will be provided and how the results will be used? Where the member is using (selecting, developing, modifying and running) the model, is the member satisfied there is adequate documentation of the model design, operation, construction, conditions of use and limitations? This documentation should include, where appropriate, scope, purpose, methodology, statistical quality, calibration, and fitness for intended purpose, and reflect changes to the model (if any) made by the member. Where the member is using (selecting, developing, modifying and running) the model, a) is the member sit suing (selecting, developing, modifying and running) the model, a) is the member sit suing (selecting, developing, modifying and running) the model, a) is the member sit suing (selecting, developing, modifying and running) the model, a) is the member sit suing (selecting, developing, modifying and running) the model, a) is the member sit suing (selecting, developing, modifying and running) the model, a) is the member sit suing (selecting, developing, modifying and running) the model of the mod

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments
			processes are appropriate for different elements of the work and when the processes should be carried out,	f. Whether there are legislative or regulatory requirements for the work to be peer reviewed g. The desirability of assuring public confidence in the quality of the work			
		2.12.2	considered: Roles and responsibilities	If another person is reviewing work performed, is there clarity regarding each reviewer's roles and responsibilities and whether the reviewer has competence and capacity to perform the review?			
		2.12.3	Documentation	Has the completion of quality assurance processes been suitably documented?			
	2.13 Treatment of Subsequent Events	2.13	Subsequent Events	Have all subsequent events, which have the potential of materially changing the results of the actuarial work performed, been considered and also disclosed in the recorded communication?			
		2.14.1	Retention of Documentation	Will all documentation for purposes such as: peer review, audit, regulatory review, compliance with law be retained for a reasonable period of time?			
	2.14 Retention of documentation		Detail of Documentation	Does all documentation contain enough detail for a member who is qualified in the same practice area to understand the work and assess the judgements made?			
			Access to material	Has the member ensured that, nothing in this ASP is intended to give any person access to material beyond the access that they are otherwise authorised to have.			
		3.1.1	Form and content	Is the form, structure, style, level of detail and content of the communication appropriate for the particular circumstances and for the intended users?			
	3.1 General	3.1.2	Clarity	Is the wording of the recorded communication clear and the language used appropriate for the circumstances and the intended users?			
	principles	3.1.3	Timing	Was the communication issued within a reasonable time period?			
		3.1.4	Identification of the member	Does the communication clearly identify the issuing member(s)?			
3.1	3.1	3.2	Recorded communication	Has a recorded communication been completed? If no, please explain			
				a) Scope and intended use of recorded communication			
				b) Results of actuarial services, including potential variability of results			
	3.2 Recorded communication	3.2.1	recorded communication	c) Methodology, assumptions and data used			
	Communication	3.2.1	include, if	d) Any restrictions on distribution			
			applicable:	e) Date of the recorded communication			
				f) Information on the authorship of the recorded communication			
		3.2.2		a) Any material deviation from the requirements of this ASP (1.3)			

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments			
				b) Any reliance on information prepared by another party for which the member disclaims responsibility (2.3.3)						
				c) Any material omissions, understatements or overstatements (2.4)						
				d) Any data modification, validation, adjustment and deficiencies (2.5)						
				e) Member's assessment of the uncertainty inherent in the information used by the member (2.5.4c)						
				f) Any margins for adverse deviations in assumptions or methodology						
			Disclosures: Does	g) Any material inconsistency in the assumptions used (2.7.6)						
			the recorded communication disclose, if applicable:	h) Where the recorded communication contains the results of an additional calculation using an assumption set requested by the principal which the member does not judge to be reasonable for the purpose of the assignment (2.8.3)						
				i) Assumptions and methodology prescribed by another party which the member does not support (2.8)						
				j) Assumptions and methodology that are mandated by law (2.9)						
				k) The limitations, and uncertainties, of any model used for their work, and their broad implications (2.10.3)						
				1) The management actions and responses assumed in the model used for the work, and their implications (2.10.6.e)						
			m) Any relevant and material subsequent event (2.13)							
			Authorship: Does c	a) Member's name						
				b) If applicable, name of organisation on behalf of which the member is issuing the recorded communication, and the position held by the member						
		3.2.3		c) Capacity in which the member serves						
						include:	d) Member's qualifications			
				e) Code of professional conduct and actuarial standards under which the work was performed						
				f) If applicable, attestations and reliances						
	3.2.4			Where a recorded communication comprises multiple documents, has the member communicated to all intended users which documents comprise the recorded communication?						
		3.2.5	Constraints	Has the member followed the requirements of this ASP to the extent reasonably possible within any constraints, e.g. legal, legislative, regulatory or supervisory proceedings or requirements, or other standards such as financial reporting standards or an entity's accounting policy						
4. Compensation for professional shortcomings	4	4.1	responsible person where actuarial	Consider the potential for those clients to suffer reasonably foreseeable loss, whether indirect or direct, caused by negligence, breach of duty of care or equivalent legal liability in relation to the external actuarial work provided and ensure that appropriate arrangements are in place in relation to compensation for such loss.						

ASP Section Header	ASP Sub- Section Header	ASP Section	Issue	Description	Addressed	Location of evidence	Comments
		4.2		Ensure that the member is in a position to justify the appropriate arrangements in place in relation to 4.1, if reasonably called upon to do so to.			

5.2 Liability Adequacy Testing ("LAT") – example format

The following table is one example, amongst others, of how a company may decide to analyse and present its LAT for the reporting period for FRS 103 reporters. The structure and components in this example may not be applicable or appropriate to an individual company. Dummy numbers are included in the table.

YEXX	Investment (without	Insurance (without	Insurance (with DPF)	Investment (with DPF)	Total
Amounts in € millions	DPF)	DPF)			
Gross of reinsurance					
Financial statements					
FS unit reserves (A)	1,000	1,000	1,000	1,000	4,000
FS non-unit reserves (B)	0	150	200	100	450
Total reserves	1,000	1,150	1,200	1,100	4,450
$(\mathbf{C} = \mathbf{A} + \mathbf{B})$					
DAC (D)	120	130	80	80	410
DIL (E)	100	0	0	0	100
FS reserves net of	980	1,020	1,120	1,020	4,140
intangibles					
$(\mathbf{F} = \mathbf{C} - \mathbf{D} + \mathbf{E})$					
Best estimate					
BE unit reserves (G)	1,000	1,000	1,000	1,000	4,000
BE non-unit reserves (H)	-120	-30	50	-100	-200
BE total reserves	880	970	1,050	900	3,800
$(\mathbf{I} = \mathbf{G} + \mathbf{H})$					<u> </u>
"Headroom"	100	50	70	120	340
$(\mathbf{J} = \mathbf{F} - \mathbf{I})$					

5.3 DAC / DIL roll-forward – example format

The following table is one example, amongst others, of how a company may decide to analyse and present its DAC or DIL roll-forward for the reporting period. The structure and components in this example may not be applicable or appropriate to an individual company. Dummy numbers are included in the table.

Amounts could be presented both gross or net of reinsurance.

Amounts in € millions	YEXX	YEX[x-1]	Movement
Opening balance	592	700	-108
Impact on opening of changes in methodology	-60	0	-60
Existing business at start of period			
Adjusted opening balance	532	700	-168
LESS: Amortisation on opening balance	55	70	-15
Amortised %	10.3%	10.0%	0.3%
Post amortisation amount	477	630	-153
LESS: Impact of offs on post amortisation amount	25	30	-5
LESS: Impact of impairment	0	50	-50
Closing amount for existing business (A)	452	550	-98
New business during the period			
Amount deferred	80	50	30
LESS: Amortisation on amount deferred	4	3	1
Amortised %	5.0%	6.0%	-1.0%
Post amortisation amount	76	47	29
LESS: Impact of offs on post amortisation amount	2	1	1
LESS: Impact of impairment	0	4	-4
Closing amount for new business (B)	74	42	32
Total closing balance (A + B)	526	592	-66

The amounts reported in this section are not related to the amounts in Section 5.2 of this paper.

5.4 IFRS 17 Movement in Carrying Amounts – example format

Paragraphs 98 to 105B of IFRS 17 specify how reporters are required to explain movements in carrying amounts of (re)insurance assets or liabilities over the reporting period. The following table covers one example, amongst others, of how some of those requirements may be satisfied. The structure and components in this example may not be applicable or appropriate to an individual company. Dummy numbers are included in the table.

€m	Liability for re	maining coverage	Liability for inc	curred claims	
20XX	Excluding loss component	Loss component	Estimates of the present value of future cash flows	Risk adjustment	Total
Insurance contract liabilities as at 1 January 20XX	59	4	311	16	390
Insurance contract assets as at 1 January 20XX	-	-	-	-	-
Net insurance contract (assets)/liabilities as at 1 January 20XX	59	4	311	16	390
Insurance revenue	(100)	-	-	-	(100)
Insurance service expenses					
Incurred claims and other expenses	0	-	89	4	93
Losses on onerous contracts and reversals of those losses	-	2	-	-	2
Changes to liabilities for incurred claims	-	-	(12)	(0)	(12)
Total Insurance service expenses	0	2	77	3	82
Insurance service result	(100)	2	77	3	(18)
Insurance finance expenses	-	-	20	1	21
Effect of movements in exchange rates	2	-	9	0	11
Total changes in the statement of comprehensive income	(98)	2	106	4	14
Cash flows					
Premiums received	94	-	-	-	94
Claims and other expenses paid	0	-	(78)	-	(78)
Total cash flows	94	0	(78)	0	16

€m	Liability for re	maining coverage	Liability for inc	curred claims	
20XX	Excluding loss component	Loss component	Estimates of the present value of future cash flows	Risk adjustment	Total
Net insurance contract (assets)/liabilities as at 31 December 20XX	55	6	339	20	420
Insurance contract liabilities as at 31 December 20XX	55	6	339	20	420
Insurance contract assets as at 31 December 20XX	-	-	-	-	-
Net insurance contract as at 31 December 20XX	55	6	339	20	420

5.5 Glossary

ARTP	Actuarial Report on Technical Provisions (Solvency II)
ASP	Actuarial Standard of Practice
AVIF	Acquired Value of In-Force business
BEL	Best Estimate Liability (Solvency II)
CSM	Contractual Service Margin (IFRS17)
DAC	Deferred Acquisition Costs asset (may also be referred to as Deferred Origination Costs "DOC" for investment classified contracts)
DIL	Deferred Income Liability (may also be referred to as Deferred Origination Fees "DOF", Deferred Income Reserves "DIR", Deferred Front-end Fees "DFEF", Unearned Revenue Reserve "URR")
DPF	Discretionary Participation Features, e.g. with-profits
DTA	Deferred Tax Asset
DTL	Deferred Tax Liability
ED	Embedded Derivative
ESAP	European Actuarial Standard of Practice
FRS	Financial Reporting Standards (as applied in Ireland / UK)
FS	Financial Statements
GAAP	Generally Accepted Accounting Principles
GMM	General Measurement Model (IFRS17)
IAA	International Actuarial Association
IFRS	International Financial Reporting Standards
LAT	Liability Adequacy Test
PAA	Premium Allocation Approach (IFRS17)
SAI	Society of Actuaries in Ireland
VFA	Variable Fee Approach (IFRS17)